

3

realized in an intrabuccal stretcher **1** according to a second embodiment as shown in the front view of FIG. **4** and in the plan view of FIG. **5**. The supporting bar **3** is separated at the bottom center into two parts, i.e., a right half and a left half. The proximal end portions of the thus separated supporting bars **3** are pivotally and lockably connected to each other by a pin **6**. The example illustrated in FIGS. **4** and **5** shows the state where the intrabuccal stretcher **1** is locked with the minimum width.

As second width-adjusting means, there is a case employing a width-adjusting ring **7** shown in FIG. **8**. The supporting bar **3** shown in FIG. **8** is separated at the bottom center into two parts, i.e., a right half and a left half. The proximal end portions of the thus separated supporting bars **3** are closely connected to each other by the width-adjusting ring **7**. The middle illustration in FIG. **8** is of the basic form, and a wide intrabuccal stretcher **1** can be obtained by loosening the width-adjusting ring **7** in the basic form to pull the supporting bars **3** outward and fastening the bars **3** at a desired position with the width-adjusting ring **7**.

Further, as shown in the left illustration in FIG. **8**, a single intrabuccal stretcher **1** can be obtained if the supporting bars **3** are fastened and locked with one supporting bar **3** being pivoted down after loosening of the width-adjusting ring **7**.

The configuration of the supporting bar **3** may not be limited to that shown in FIG. **1**, but there may be considered various configurations including the V-shape as shown in FIG. **6**, the crossed shape in which the supporting bar **3** is crossed near distal end portions as shown in FIG. **7**, as well as, a vertically oblong rectangular shape and a rectangular shape reducing toward its top (which are not shown).

The supporting bar **3** is preferably made of a flexible material, and the material is not critical and may be a spring or a resin so long as it has flexibility.

FIGS. **10** to **12** are explanatory drawings when the intrabuccal stretcher **1** shown in FIG. **1** is inserted to an oral cavity. As shown in FIG. **12**, when the pushing parts **2** of the intrabuccal stretcher **1** are to be inserted into the oral cavity, the supporting bar **3** of the intrabuccal stretcher **1** is squeezed inward for insertion, as shown in FIG. **10** or are inserted one by one as shown in FIG. **11**.

FIGS. **13** to **15** are explanatory drawings showing states where buccae are stretched by the intrabuccal stretcher. To describe basics of the usage of the intrabuccal stretcher **1**, after the intrabuccal stretcher **1** is inserted to the oral cavity as described above, it is pulled forward, shifted sideways or widened with the fingers to stretch the internal sides of the buccae.

FIG. **13** shows an example where the internal sides of the buccae are stretched depthwise by pulling forward the supporting bar **3** as indicated by the arrow in the drawing. FIGS. **14** and **15** show examples where the internal sides of the buccae are stretched laterally. In FIG. **14**, the internal sides of the buccae are abutted against the pushing parts **2** and are tightened by deliberate motion of the mouth to be stretched utilizing the flexibility of the supporting bar **3**; whereas in FIG. **15**, the supporting bars **3** are pulled outward with fingers to widen the span between the pushing parts **2** and stretch the internal sides of the buccae.

According to the above usage, both internal sides of the buccae are stretched simultaneously. However, there are

4

considered various usage: The internal sides of the buccae may be stretched separately, or the intrabuccal stretcher **1** may be twisted to abut one pushing part **2** against the upper part of one bucca and the other pushing part **2** against the lower part of the other bucca.

Although not shown, it is also possible to use the intrabuccal stretcher **1** by inserting only one pushing part **2** into the oral cavity. In this case, the internal side of only one bucca can be stretched intensively.

While the span between the supporting bars **3** is usually widened by pulling them outward with fingers of both hands, if additional levers **5** are attached to the lower part of the supporting bar **3** to extend down therefrom, as shown in FIG. **10**, widening of the span can be facilitated utilizing the principles of the lever and fulcrum by nipping the additional levers **5**. It is also possible to automate the widening action and the width-adjusting action using a motor and the like.

The present invention exhibits the following having because of the constitution as described above:

- (1) Muscles and tendons relating to the oral cavity can be massaged using the intrabuccal stretcher having a simple structure consisting essentially of a pair of pressing parts and a supporting bar;
- (2) Buccae can be stretched without being hurt at the internal sides, since the pushing parts have such a thickness and such a roundish shape as are suitable for pushing the internal sides of the buccae;
- (3) Since the intrabuccal stretcher is used with the supporting bar remaining partly outside the oral cavity, stretching can be carried out by operating the supporting bar with fingers, simplifying usage of the stretcher; and
- (4) The supporting bar **3** is curved almost symmetrically with respect to the vertical axis and is provided at each distal end with the pushing part, so that the internal sides of the buccae can be simultaneously stretched, effectively.

Although some embodiments of the present invention have been described herein, it should be apparent to those skilled in the art that the present invention may be embodied in many other specific forms without departing from the spirit or scope of the invention. Therefore, the present examples and embodiments are to be considered as illustrative and not restrictive, and the invention is not to be limited to the details given herein, but may be modified within the scope of the appended claims.

What is claimed is:

1. An intrabuccal stretcher comprising:

a supporting bar and a roller attached at each of distal ends of the supporting bar;

wherein the rollers have such a thickness and such a roundish shape as are suitable for pushing internal sides of buccae;

wherein the supporting bar is bent almost symmetrically with respect to a center thereof;

wherein the rollers extend outward from the distal ends of the supporting bar; and

whereby the rollers may be inserted into an oral cavity with the supporting bar remaining partly outside the oral cavity to push and stimulate internal sides of the buccae.

2. The intrabuccal stretcher according to claim 1, wherein the supporting bar is V-shaped.